

PREMIUM STAINLESS STEEL WASHGUARD MOTORS

Meets Demanding Sanitation Requirements

Designed specifically to meet the demanding sanitation requirements of the pharmaceutical, food processing and beverage industries. These motors are also ideal in clean room and severe chemical-processing applications involving frequent washdown with nitric acid and caustic lye. In fact, WASHGUARD All-Stainless Motors include IEEE 841 severe-duty features right out of the box!

PREMIUM STAINLESS STEEL DUCK



Mechanical Protection Features

- All exterior components are 300-series stainless steel.
- Nothing on the motor's exterior is painted or coated in any way.
- All sealing components are Viton® for superior chemical resistance.
- Full fact nameplate is laser etched on the motor frame – no separately attached nameplate to trap dirt or contaminants.
- Endshields are O-ring sealed to the frame.
- Double lip shaft seals on both ends of TEFC motors (shaft end only on TENV motors).
- Removable hydrophobic breathers in opposite shaft endbell and conduit box equalize pressure without allowing moisture to enter.
- Exterior fastener use minimized reducing the number of entry points for moisture. There are no holes in the frame for attaching a nameplate. Bearing lock screws are located inside the motor and the conduit box mounted screws have been eliminated.
- Double-sealed bearings are pre-lubricated with moisture-resistant high-temperature grease for long life.
- Interior coatings applied to rotor and stator protect against corrosion.
- New conduit box mounting system provides optimum sealing.
- Ease to clean construction is BISSC Certified for bakery applications.

Electrical Performance and Protection Features

- WASHGUARD efficiencies meet EPACT mandates for non-exempt motors when tested without shaft seals.
- Windings are immersed and cured in polyester insulating varnish for extra moisture-resistance.
- LEESON's exclusive IRIS™ Inverter-Rated Insulation System provides extra protection and long life, especially in inverter-driven applications.
- Single-phase motors use Solid State Sinpac® switch – no mechanical switch contacts to corrode and fail.
- Single and three phase motors are UL component recognized – file number E57948, guide number PRGY2.

Standards and Approvals

- Single and three phase motors are UL component recognized – file number E57948, guide number PRGY2.
- CSA Energy Efficiency Verification Program, report number EEV 78720-1.
- Construction is CSA Certified for safety report number LR33543 and listed under BISSC authorization number 769.



300-Series stainless steel exterior components – frame, base, endshields, shaft extension, fan guard, hardware, conduit box and cover – for maximum corrosion resistance.

Laser-etched full-fact nameplate on motor frame.

Interior coatings applied to rotor and stator protect against moisture and corrosion.

Double-sealed bearings with moisture-resistant high-temperature grease.

Viton® double-lip shaft seals on both ends of TEFC motors.

Hydrophobic breathers in opposite endshield and conduit box allow passage of air for pressure equalization without allowing moisture to enter the motor.

Fillet welded base is double-welded for greatest strength.
Extra strong cast stainless steel base on motors over 1HP.

Revolutionary conduit box mounting uses pressure clip to assure maximum sealing and allows easy repositioning for multiple conduit entry locations.

Viton® O-rings seal the fit between the frame and endshields to exclude moisture and resist harsh chemicals.

PREMIUM STAINLESS STEEL WASHGUARD MOTORS



SINGLE PHASE TENV/TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	Over- load Prot.	FL. Amps 230V	"C" Dim. (Inches)
1/3	1750	56HC	116343	□	A 35	115/208-230	None	2.7	12.20
1/2	3450	56HC	116344	□	A 38	115/208-230	None	3.8	12.20
	1750	56HC	116345	□	A 38	115/208-230	None	3.3	12.70
3/4	1750	56HC	116346	□	A 42	115/208-230	None	3.8	12.70
1	3450	56HC	116347	□	A 49	115/208-230	None	6.0	13.70
	1750	56HC	116348	□	A 49	115/208-230	None	4.5	13.70
1½	3450	56HC	116482	□	A 49	115/208-230	None	6.8	13.81
	1750	145TC	121622	B	53	115/208-230	None	7.4	14.81
2	3450	145TC	121623	B	57	115/208-230	None	8.8	14.81
	1750	145TC	121632	B	57	115/208-230	None	10.0	14.81

TENV/TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	Over- load Prot.	FL. Amps 230V	"C" Dim. (Inches)
1/3	1750	56C	116349	●	A 35	115/208-230	None	2.7	11.70
1/2	1750	56C	116350	●	A 38	115/208-230	None	3.3	12.70
3/4	1750	56C	116351	●	A 42	115/208-230	None	3.8	12.70
1	1750	56C	116352	●	A 49	115/208-230	None	4.5	13.70
1½	1750	145TC	121624	B	53	115/208-230	None	7.4	14.87
2	1750	145TC	121633	B	57	115/208-230	None	10.0	14.87

BRAKE MOTORS



THREE PHASE TENV • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1/2	1725	56C	116483	●	A 150	208-230/460	1.6	78.5	15.85
1	1725	56C	116484	●	A 155	208-230/460	3.0	81.5	15.85

TEFC • JM PUMP

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1	1750	143JM	121626	B	53	208-230/460	3.1	82.5	16.00
1½	3450	143JM	121627	B	46	208-230/460	4.0	82.5	16.00
	1750	145JM	121628	B	49	208-230/460	4.4	84.0	16.00
2	3450	145JM	121629	B	52	208-230/460	5.2	84.0	16.00
	1750	145JM	121630	B	50	208-230/460	5.6	84.0	16.50
3	3450	145JM	121631	B	53	208-230/460	7.6	85.5	16.50
	1750	182JM	131996	B	85	208-230/460	8.2	87.5	16.20
5	3450	184JM	131997	B	89	208-230/460	12.0	87.5	16.20
	1750	184JM	131998	B	96	208-230/460	13.0	87.5	16.77
7½	3450	213JM	140740	B	153	208-230/460	18.4	88.5	16.81
	1750	213JM	140741	B	156	208-230/460	20.4	89.5	19.81
10	3450	215JM	140742	B	155	208-230/460	24.0	89.5	19.81
	1750	215JM	140743	B	173	208-230/460	26.0	89.5	19.81

THREE PHASE TENV/TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	3450	56HC	116165	□	A 35	208-230/460	1.6	82.5	12.04
	1750	56HC	115633	□	A 35	208-230/460	1.6	78.5	12.54
	1140	56HC	116297	□	A 35	208-230/460	2.3	77.0	12.54
3/4	3450	56HC	116167	□	A 40	208-230/460	2.4	84.0	12.54
	1750	56HC	115634	□	A 41	208-230/460	2.3	80.0	13.04
	1140	56HC	116298	□	A 46	208-230/460	3.0	78.5	14.04
1	3450	56HC	116169	□	A 43	208-230/460	2.6	85.5	13.04
	1750	56HC	115635	□	A 44	208-230/460	3.0	81.5	13.54
	1750	56HC	116674	A	39	208-230/460	3.1	82.5	13.13
	1750	143TC	121419	□	B 44	208-230/460	3.0	81.5	13.61
	1750	143TC	G121658	B	50	208-230/460	3.1	82.5	13.19
	1140	56HC	116299	□	B 48	208-230/460	4.0	77.0	13.13
1½	3450	143TC	G121524	B	45	208-230/460	4.0	82.5	13.69
	1750	56HC	116450	□	B 49	208-230/460	4.4	84.0	13.63
	1750	145TC	G121420	B	49	208-230/460	4.4	84.0	13.69
	1140	56HC	116300	□	B 51	208-230/460	5.4	80.0	14.13
2	3450	145TC	G121526	B	49	208-230/460	5.2	84.0	13.69
	1750	56HC	116451	□	B 50	208-230/460	5.6	84.0	13.63
	1750	145TC	G121421	B	50	208-230/460	5.6	84.0	13.69
3	3450	145TC	G121528	B	53	208-230/460	7.6	85.5	13.69
	1750	182TC	G131900	B	85	208-230/460	8.2	87.5	14.77
5	3450	184TC	G131901	B	90	208-230/460	12.0	87.5	14.77
	1750	184TC	G131902	B	96	208-230/460	13.0	87.5	15.27
7½	3450	213TC	G140698	B	160	208-230/460	18.4	88.5	18.69
	1750	213TC	G140675	B	160	208-230/460	20.4	89.5	18.69
10	3450	215TC	G140699	B	165	208-230/460	24.0	89.5	18.69
	1750	215TC	G140676	B	173	208-230/460	26.0	89.5	18.69

TENV/TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	3450	56C	116316	●	A 35	208-230/460	1.6	82.5	12.04
	1750	56C	116166	●	A 34	208-230/460	1.6	78.5	12.54
3/4	3450	56C	116317	●	A 40	208-230/460	2.4	84.0	12.54
	1750	56C	116168	●	A 40	208-230/460	2.3	80.0	13.04
1	3450	56C	116318	●	A 43	208-230/460	2.6	85.5	13.04
	1750	56C	116170	●	A 44	208-230/460	3.0	81.5	13.54
	1750	56HC	116675	A	45	208-230/460	3.1	82.5	13.13
	1750	143TC	121523	●	B 44	208-230/460	3.0	81.5	13.61
	1750	143TC	121659	B	46	208-230/460	3.1	82.5	13.19
1½	3450	143TC	121560	B	45	208-230/460	4.0	82.5	12.69
	1750	56C	116448	B	49	208-230/460	4.4	84.0	13.63
	1750	145TC	121525	B	49	208-230/460	4.4	84.0	13.69
2	3450	145TC	121561	B	48	208-230/460	5.2	84.0	13.19
	1750	56C	116449	B	49	208-230/460	5.6	84.0	13.63
	1750	145TC	121527	B	54	208-230/460	5.6	84.0	13.69
3	3450	145TC	121562	B	49	208-230/460	7.6	85.5	13.69
	1750	182TC	131923	B	82	208-230/460	8.2	87.5	14.77
5	3450	184TC	131949	B	90	208-230/460	12.0	87.5	14.77
	1750	184TC	131924	B	94	208-230/460	13.0	87.5	15.27

- These motors are totally enclosed, non-ventilated — Others are fan cooled.
- Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.

Catalog numbers in green are EPACT motors.





WASHGUARD SST

STAINLESS STEEL MOTORS

Long Life in Severe Duty or Washdown Applications

Washguard SST motors are designed **Stainless Steel Tough** to withstand the demanding environments found in the food processing, chemical processing and beverage industries.

Product Features

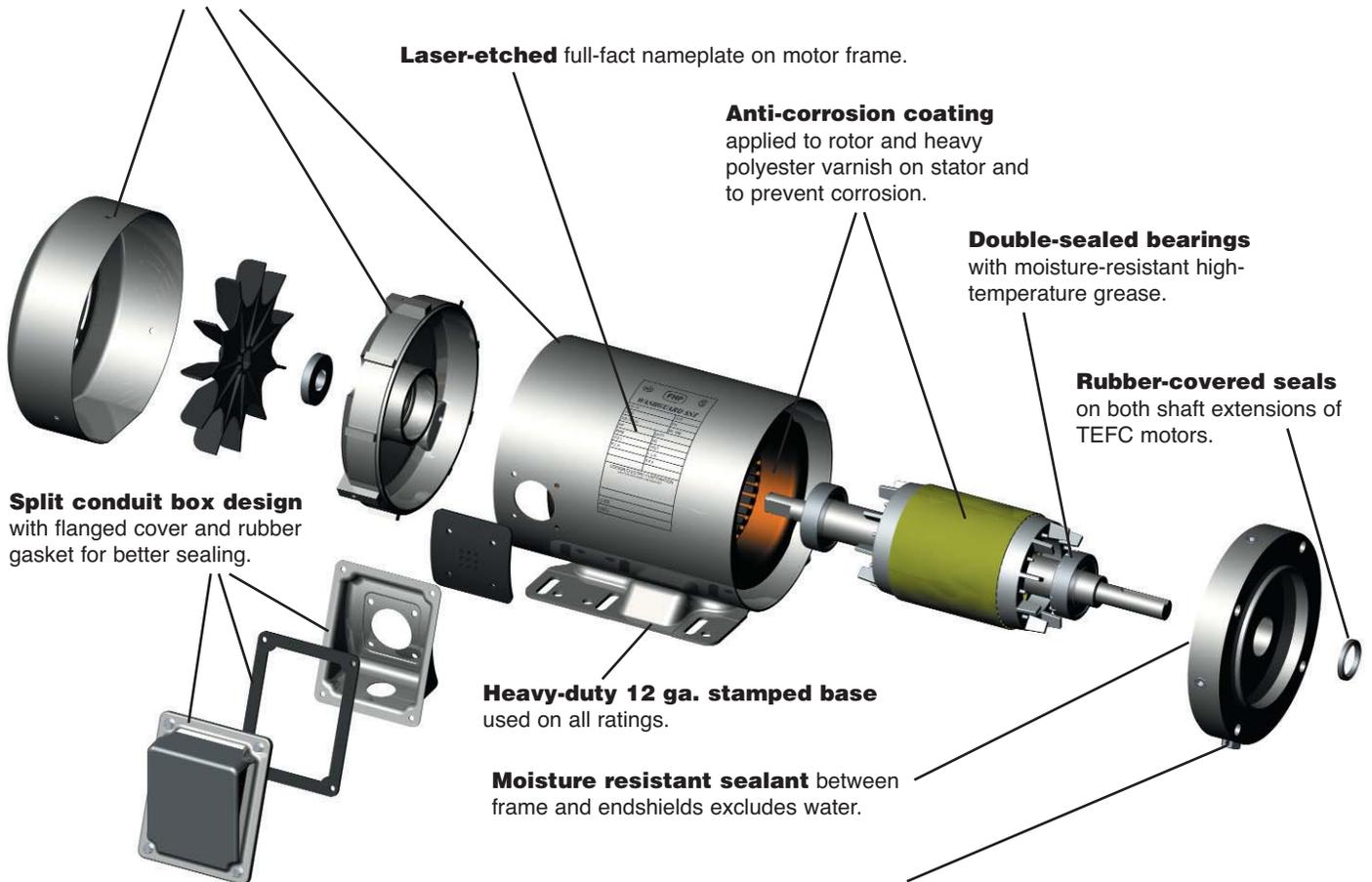
- 1/3 thru 3 HP
- 1750 & 3450 RPM ratings available in TEFC and TENV enclosures
- 56C, 143TC & 145TC frame sizes available
- Rigid/C-Face and C-Face less base mountings available
- LEESON's IRIS (Inverter Rated Insulation System) included on all ratings
- Fully-gasketed conduit box and rubber-covered oil seals to exclude water
- All-stainless steel construction prevents corrosion in harsh washdown environments



WASHGUARD SST

- No paint or coatings of any type are used on the exterior of the motor
- Nameplate is laser-etched into the motor frame to eliminate nameplate rivet holes and bearing locking screws located inside the motor to reduce entry points for water
- Rugged industrial-duty construction

300-Series stainless steel exterior components – frame, base, endshields, shaft extension, fan guard, hardware, conduit box and cover – for maximum corrosion resistance.



Four condensate drains in each endshield (at three, six, nine and twelve o'clock) provide locations to purge condensate and water, which may enter the motor.
T-drains provided for effective drainage without allowing water to splash inside the motor. T-drain for opposite shaft end is installed at six o'clock position (and can be relocated easily). T-drain for shaft end is shipped loose for customer installation at low point of motor.

WASHGUARD ALL-STAINLESS MOTORS



WASHGUARD SST

Built with all stainless steel external components to prevent corrosion and well sealed against moisture and condensation to protect internal components, the Washguard SST all-stainless motors are able to withstand the severe washdown environments found in the food processing, chemical processing, and beverage industries.

Mechanical Protection Features

All exterior components – frame, base, endshields, fan guard, shaft, hardware, conduit box and cover – are made from 300 series stainless steel for maximum corrosion resistance. Nameplate data is permanently laser-etched into the motor frame – no Mylar nameplate that can wash off or riveted metal nameplate to trap dirt. No paint or any type of coating is used on the exterior of the motor.

Sealant is applied to endshield and frame fits before assembly to prevent water entry. Shaft seals on both ends of TEFC motors – shaft end only on TENV. Double-sealed bearings have high performance Exxon Polyrex EM grease. Conduit box is fully gasketed half-split design with flanged cover and body gasket with lead separator. Anti-corrosion coating on rotor prevents corrosion. Four quadrant drain locations on each endbell allow drainage of condensation in any mounting position. Stainless steel T-drains are provided to prevent liquids from splashing into the drain locations. Motors are shipped with a T-drain assembled in the six o'clock position on the opposite endshield. Another T-drain is shipped loose in the conduit box for installation at the lowest point of the shaft-end endshield. For a totally sealed motor, a spare pipe plug is included to replace the pre-installed T-drain.

Mechanical performance is further enhanced by over-sized bearings, heavy 12 gauge base, shaft-end bearing is locked internally to limit axial endplay, and specially designed shaft extension resists breakage at bearing journal.

Electrical Performance and Protection Features

FHP Washguard SST full load efficiencies meet EPACT standards for non-exempt motors when tested without shaft seals. For extra moisture resistance, windings are immersed and cured in polyester insulating varnish. LEESON's exclusive IRIS™ Inverter-Rated Insulation System provides extra protection and long life, especially in inverter driven applications.

Standards and Approvals

UL component recognized, file number E57948, guide number PRGY2. Energy efficiency ratings are verified by an independent testing laboratory. CSA Energy Efficiency Verification Program, report number EEV 78720-1. Construction is CSA Certified for safety report number LR33543. Motor is CE marked for European acceptance.

THREE PHASE ALL-STAINLESS • TENV/TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3450	56C	191200•	A	29	208-230/460	1.0	74.0	9.40
	1750	56C	191201•	A	30	208-230/460	1.3	78.5	9.40
1/2	3450	56C	191203•	A	32	208-230/460	1.5	77.0	9.40
	1750	56C	191204•	A	33	208-230/460	1.6	81.5	9.40
3/4	3450	56C	191206•	A	33	208-230/460	2.0	78.5	9.40
	1750	56C	191207•	A	38	208-230/460	2.3	82.5	9.40
1	3450	56C	191209	A	41	208-230/460	2.6	80.0	13.40
	3450	143TC	G191210	B	42	208-230/460	2.6	80.0	13.87
	1750	56C	191291•	A	49	208-230/460	3.0	81.0	13.50
	1750	56C	191211	A	47	208-230/460	3.0	82.5	13.40
	1750	143TC	G191212	B	48	208-230/460	3.0	82.5	13.87
1½	3450	56C	191215	A	48	208-230/460	3.8	82.5	13.40
	3450	143TC	G191216	B	49	208-230/460	3.8	82.5	13.87
	1750	56C	191217	A	48	208-230/460	4.8	84.0	13.40
	1750	145TC	G191218	B	49	208-230/460	4.8	84.0	13.87
2	3450	56C	191221	A	49	208-230/460	5.0	84.0	13.40
	3450	145TC	G191222	B	50	208-230/460	5.0	84.0	13.87
	1750	56C	191223	A	52	208-230/460	5.8	84.0	13.40
	1750	145TC	G191224	B	53	208-230/460	5.8	84.0	13.87
3	3450	145TC	G191293	B	62	208-230/460	7.4	85.5	13.87



ALL-STAINLESS • TENV/TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1750	56C	191202•	A	29	208-230/460	1.3	78.5	9.40
1/2	1750	56C	191205•	A	32	208-230/460	1.6	81.5	9.40
3/4	1750	56C	191208•	A	38	208-230/460	2.3	82.5	9.40
1	1750	56C	191290•	A	48	208-230/460	3.0	81.0	13.50
	1750	56C	191213	A	46	208-230/460	3.0	82.5	13.40
	1750	143TC	191214	B	47	208-230/460	3.0	82.5	13.87
1½	1750	56C	191219	A	47	208-230/460	4.8	84.0	13.40
	1750	145TC	191220	B	48	208-230/460	4.8	84.0	13.87
2	1750	56C	191225	A	51	208-230/460	5.8	84.0	13.40
	1750	145TC	191226	B	52	208-230/460	5.8	84.0	13.87

• These motors are totally enclosed, non-ventilated – Others are fan cooled.

Numbers in green are EPACT motors.

